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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
LAZARO, DAVID R	

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 03/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/774,976	MARTIJA ET AL.	
	Examiner	Art Unit	
	David Lazaro	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the amendment filed 10/29/04.

2. Claims 1-22 are pending in this Office Action.

3. The Objections to the disclosure are withdrawn.

Response to Amendment

4. The declaration filed on 10/29/04 under 37 CFR 1.131 has been considered but is ineffective to overcome the U.S. Patent Application 2002/0087666 by Huffman et al. (Huffman) reference.

5. The evidence submitted is insufficient to establish a reduction to practice of the invention prior to the effective date of the Huffman reference. This is based on the following:

a. First: All inventors did not sign the declaration. MPEP 715.04 states the following:

"The following parties may make an affidavit or declaration under 37 CFR 1.131:
(A) All the inventors of the subject matter claimed.
(B) An affidavit or declaration by less than all named inventors of an application is accepted where it is shown that less than all named inventors of an application invented the subject matter of the claim or claims under rejection. For example, one of two joint inventors is accepted where it is shown that one of the joint inventors is the sole inventor of the claim or claims under rejection.
(C) A party qualified under 37 CFR 1.42, 1.43, or 1.47 in situation where some or all of the inventors are not available or not capable of joining in the filing of the application.
(D) The assignee or other party in interest when it is not possible to produce the affidavit or declaration of the inventor. Ex parte Foster, 1903 C.D. 213, 105 O.G. 261 (Comm'r Pat. 1903).
Affidavits or declarations to overcome a rejection of a claim or claims must be made

by the inventor or inventors of the subject matter of the rejected claim(s), a party qualified under 37 CFR 1.42, 1.43, or 1.47, or the assignee or other party in interest when it is not possible to produce the affidavit or declaration of the inventor(s). Thus, where all of the named inventors of a pending application are not inventors of every claim of the application, any affidavit under 37 CFR 1.131 could be signed by only the inventor(s) of the subject matter of the rejected claims."

Since Huffman is used as a 102(e) reference for Claims 1, 2, 7, 12, 13, 15-20 and as the primary reference for the 103(a) rejections for Claims 3, 8, 21 and 22 and for Claims 4-6, 9-11 and 14, the "claims under rejection" in regards to the submitted declaration are all the claims of the instant application. Therefore all inventors must sign the declaration since it cannot be shown that "one of the joint inventors is the sole inventor of the claim or claims under rejection." Please see 37 CFR 1.42, 1.43, or 1.47 if an inventor is not available.

b. Second: In regards to Exhibits I, II and III, the declaration and exhibits have failed to clearly explain and point out what facts are established and relied on by applicants. MPEP 715.07 [R-2] I, states the following:

"*The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice "amounts essentially to mere pleading, unsupported by proof or a showing of facts" and, thus, does not satisfy the requirements of 37 CFR 1.131(b). In re Borkowski, 505 F.2d 713, 184 USPQ 29 (CCPA 1974). Applicant must give a clear explanation of the exhibits pointing out exactly what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also In re Harry, 333 F.2d 920, 142 USPQ 164 (CCPA 1964) (Affidavit "asserts that facts exist but does not tell what they are or when they occurred.")*."

While the declaration asserts reduction to practice of the elements found in the claimed subject matter, the declaration and exhibits do not clearly explain which facts or data support such assertions of these elements. For instance, there is no clear explanation as to how particular sections of program code, found in the Exhibits, relate to the elements or are used to establish reduction to practice of the elements of the claimed subject matter. As such, the declaration does not give clear explanation of the exhibits pointing out exactly what facts are established and relied on by applicants.

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 2, 7, 12, 13, 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2002/0087666 by Huffman et al. (Huffman).

8. The examiner notes that although Huffman is likely to be antedated by a 37 CFR 1.131 affidavit or declaration due to the filing date, other prior art with similar determinations of a geographical region of a host based on a vector distance calculation are also likely to be antedated. As such, Huffman is considered the best available prior art as Huffman presents the most comprehensive method as found in the examiner's search and is therefore applied in this rejection.

9. With respect to Claim 1, Huffman teaches a method for determining a geographical region of a host in a network (Page 2 [0012]), said method comprising the steps of: selecting other hosts in the network such that the selected other hosts are

located in a plurality of geographical regions that are determinable (Page 3 [0035]); determining, at a plurality of points in the network, first sets of information associated with the selected other hosts, respectively (Page 3-4 [0040]); determining, at the plurality of points, second sets of information associated with the host (Page 4 [0042]); and determining the geographical region of the host based on the geographical region of one or more of the selected other hosts whose respective mean of first sets of information has a shortest weighted vector distance from the second sets of information (Page 4 [0043] Note: The examiner broadly interprets the claim limitations such that each region of Huffman has one selected other host and only one set of information "associated" with it, thus making the set of information from that host the mean).

10. With respect to Claim 2, Huffman teaches all the limitations of Claim 1 and further teaches wherein the step of determining the first sets of information comprises the step of: determining time delays in communicating with the selected other hosts from the plurality of points, respectively (Page 3-4 [0040]).

11. With respect to Claim 7, Huffman teaches all the limitations of Claim 1 and further teaches wherein the step of determining the second set of information comprises the step of: determining time delays in communicating with the host from the plurality of the points, respectively (Page 4 [0042]).

12. With respect to Claim 12, Huffman teaches all the limitations of Claim 1 and further teaches the step of: receiving, from the plurality of points, the first sets of information associated with the selected other hosts; and merging the first sets of information received for each of the other hosts (Page 4 [0041]).

13. With respect to Claim 13, Huffman teaches all the limitations of Claim 1 and further teaches the step of: receiving, from the plurality of points, the second sets of information associated with the host; and merging the second sets of information received for the host (Page 4 [0042]-[0043]).

14. With respect to Claim 15, Huffman teaches all the limitations of Claim 1 and further teaches wherein the step of determining the geographical region of the host comprises the steps of: classifying the selected other hosts according to their respective geographical regions (Page 3 [0035]); determining mean vectors of the first sets of information associated with the classified selected other hosts (Page 4 [0041] The examiner broadly interprets the claim limitations such that each region of Huffman has one selected other host and only one set of information "associated" with it, thus making the set of information from that host the mean); and determining Mahalanobis distances of the determined mean vectors from the second sets of information (Page 4 [0043]-[0044]).

15. With respect to Claim 16, Huffman teaches all the limitations of Claim 15 and further teaches the steps of: selecting one of the determined mean vectors with shortest Mahalanobis distance from the second sets of information (Page 4 [0043]-[0044]); and determining the geographical region of the host to be same as the geographical region of the classified selected other hosts whose respective determined mean vector is the selected one of the determined means (Page 4 [0043]-[0044]).

16. With respect to Claim 17, Huffman teaches a system, comprising: a plurality of first processors that determine first sets of information (Page 3-4 [0040]) associated with

a plurality of first hosts located in a plurality of geographical regions that are determinable (Page 3 [0035]), and determine second sets of information associated with a second host whose geographical region is unknown (Page 4 [0042]); and at least a second processor that receives the first and second sets of information (Page 4 [0043]), determines means of the first sets of information by geographical region (Page 4 [0041] The examiner broadly interprets the claim limitations such that each region of Huffman has one selected other host and only one set of information "associated" with it, thus making the set of information from that host the mean), and determines the geographical region of the second host to be the same as the geographical region of the first hosts whose respective mean of first sets of information has a shortest weighted vector distance from the second sets of information (Page 4 [0043]).

17. With respect to Claim 18, Huffman teaches all the limitations of Claim 17 and further teaches wherein the plurality of first processors are placed at different points in a network that includes the plurality of first hosts and the second host (Page 3 [0035]).

18. With respect to Claim 19, Huffman teaches all the limitations of Claim 17 and further teaches wherein the first sets of information include traceroute information associated with the plurality of first hosts, respectively (Page 3 [0034]).

19. With respect to Claim 20, Huffman teaches an apparatus, comprising: a memory including, program code that receives first sets of information (Page 3-4 [0040]) associated with a plurality of first hosts located in a plurality of geographical regions that are determinable (Page 3-4 [0035]), receives second sets of information associated with a second host whose geographical region is unknown (Page 4 [0042]), and determines

the geographical region of the second host to be the same as the geographical region of the first hosts whose respective mean of first sets of information has a shortest weighted vector distance from the second sets of information; and a processor that executes the program code (Page 4 [0043] Note: The examiner broadly interprets the claim limitations such that each region of Huffman has one selected other host and only one set of information "associated" with it, thus making the set of information from that host the mean).

Claim Rejections - 35 USC § 103

20. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

21. Claims 3, 8, 21 and 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Huffman in view of U.S. Patent 6,724,733 by Schuba et al. (Schuba).

22. With respect to Claim 3, Huffman teaches all the limitations of Claim 1 including the first sets of information being determined based on a characteristic of a communication route between a plurality of points in a network to associated selected other hosts (Page 3-4 [0040]). Huffman does not explicitly disclose determining the number of hops in one or more routes. Schuba teaches a characteristic of a communication route can be the number of hops in one or more routes (Col. 5 lines 32-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method of Huffman and modify it as indicated by Schuba such that the step of determining the first sets of information comprises the step

of: determining number of hops in one or more routes in the network from the plurality of points to the selected other hosts, respectively. Since the number of hops may give indication as to an approximate distance, one would be motivated to have this as there is need for determining the geographic location of a host (Page 1-2 [0011] of Huffman).

23. With respect to Claim 8, Huffman teaches all the limitations of Claim 1 including the second sets of information being determined based on a characteristic of a communication route to a host in a network from a plurality of points (Page 4 [0042]). Huffman does not explicitly disclose determining the number of hops in each route. Schuba teaches a characteristic of a communication route can be the number of hops in one or more routes (Col. 5 lines 32-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method of Huffman and modify it as indicated by Schuba such that the step of determining the second sets of information comprises the step of: determining a number of hops in each route in the network to the host from the plurality of the points, respectively. Since the number of hops may give indication as to an approximate distance, one would be motivated to have this as there is need for determining the geographic location of a host (Page 1-2 [0011] of Huffman).

24. With respect to Claim 21, Huffman teaches all the limitations of Claim 20 and further teaches the first sets of information being determined based on a characteristic of a communication route, such as time delays (Page 3 [0027] and [0034]), as determined from a plurality of points in a network that includes the plurality of first hosts (Page 3-4 [0040]). Huffman does not explicitly disclose including the number of hops to

the plurality of first hosts. Schuba teaches a characteristic of a communication route can be the number of hops in one or more routes (Col. 5 lines 32-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the apparatus of Huffman and modify it as indicated by Schuba such that the first sets of information includes time delays and number of hops to the plurality of first hosts, as determined from a plurality of points in a network that includes the plurality of first hosts. Since the number of hops may give indication as to an approximate distance, one would be motivated to have this as there is need for determining the geographic location of a host (Page 1-2 [0011] of Huffman).

25. With respect to Claim 22, Huffman teaches all the limitations of Claim 20 and further teaches the second sets of information being determined based on a characteristic of a communication route, such as time delays (Page 3 [0027] and [0034]), as determined from a plurality of points in a network that includes the plurality of first hosts and the second host (Page 3-4 [0040] and [0042]). Huffman does not explicitly disclose including the number of hops to the second host. Schuba teaches a characteristic of a communication route can be the number of hops in one or more routes (Col. 5 lines 32-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the apparatus of Huffman and modify it as indicated by Schuba such that the second sets of information includes time delays and number of hops to the second host, as determined from a plurality of points in a network that includes the plurality of first hosts and the second host. Since the number of hops may give indication as to an approximate distance, one would be motivated to have this

as there is need for determining the geographic location of a host (Page 1-2 [0011] of Huffman).

26. Claims 4-6, 9-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huffman in view of Periakaruppan et al. "GTrace - A Graphical Traceroute Tool", USENIX LISA'99 (GTrace).

27. With respect to Claim 4, Huffman teaches all the limitations of Claim 1 and further teaches the use of traceroute for network measurements (Page 3 [0034]) and that one can determine geographic information such as longitude and latitude for some IP addresses (Page 1 [0010]). Huffman does not explicitly disclose determining geographic information for the last identifiable routers in respective routes. However, as noted by GTrace, traceroute would include the IP addresses of the last identifiable routers in a respect path (Page 1 Section 2 – "Traceroute"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Huffman and modify it as indicated by GTrace such that the method further comprises determining geographical information associated with last identifiable routers in respective routes in the network from the plurality of points to the selected other hosts. One would be motivated to have this as geographical path information of a network route can provide valuable insight to system administrators, network engineers, operators and analysts (Page 1, Abstract, of GTrace).

28. With respect to Claim 5, Huffman in view of GTrace teaches all the limitations of Claim 4 and further teaches wherein the step of determining the geographical

information comprises the step of: determining longitudes of the last identifiable routers in the respective routes (Page 1 [0010] of Huffman).

29. With respect to Claim 6, Huffman in view of GTrace teaches all the limitations of Claim 4 and further teaches wherein the step of determining the geographical information comprises the step of: determining latitudes of the last identifiable routers in the respective routes (Page 1 [0010] of Huffman).

30. With respect to Claim 9, Huffman teaches all the limitations of Claim 1 and further teaches the use of traceroute for network measurements (Page 3 [0034]) and that one can determine geographic information such as longitude and latitude for some IP addresses (Page 1 [0010]). Huffman does not explicitly disclose determining geographic information for the last identifiable routers in respective routes. However, as noted by GTrace, traceroute would include the IP addresses of the last identifiable routers in a respect path (Page 1 Section 2 – "Traceroute"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Huffman and modify it as indicated by GTrace such that the method further comprises determining geographical information associated with last identifiable routers in respective routes in the network from the plurality of points to the host. One would be motivated to have this as geographical path information of a network route can provide valuable insight to system administrators, network engineers, operators and analysts (Page 1, Abstract, of GTrace).

31. With respect to Claim 10, Huffman in view of GTrace teaches all the limitations of Claim 9 and further teaches wherein the step of determining the geographical

information comprises the step of: determining longitudes of the last identifiable routers in the respective routes (Page 1 [0010] of Huffman).

32. With respect to Claim 11, Huffman in view of GTrace teaches all the limitations of Claim 9 and further teaches wherein the step of determining the geographical information comprises the step of: determining latitudes of the last identifiable routers in the respective routes (Page 1 [0010] of Huffman).

33. With respect to Claim 14, Huffman teaches all the limitations of Claim 1 and further teaches geographical information is included in the first sets of information (Page 3 [0035] and Page 4 [0043]), but does not explicitly disclose parsing names of the selected other hosts to determine geographical information about the selected other hosts. GTrace teaches parsing names of hosts to determine geographical information (Page 5 – "Domain Parsing files"). it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Huffman and modify it as indicated by GTrace such that the method further comprises parsing names of the selected other hosts to determine geographical information about the selected other hosts; and including the determined geographical region information in the first sets of information. One would be motivated to have this as there is need for determining the geographic location of a network host (Page 1-2 [0011] of Huffman).

Response to Arguments

34. Applicant's arguments filed 10/29/2004 have been fully considered but they are not persuasive. See "Response to Amendment" section above.

Conclusion

35. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lazaro whose telephone number is 571-272-3986. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Lazaro
February 24, 2005

HOSAIN ALAM
SUPERVISORY PATENT EXAMINER